Leland Reserve Trail Guide

A self-guided walking tour of the Leland Reserve
Preston Hill Road, Hamilton, NY

INTRODUCTION

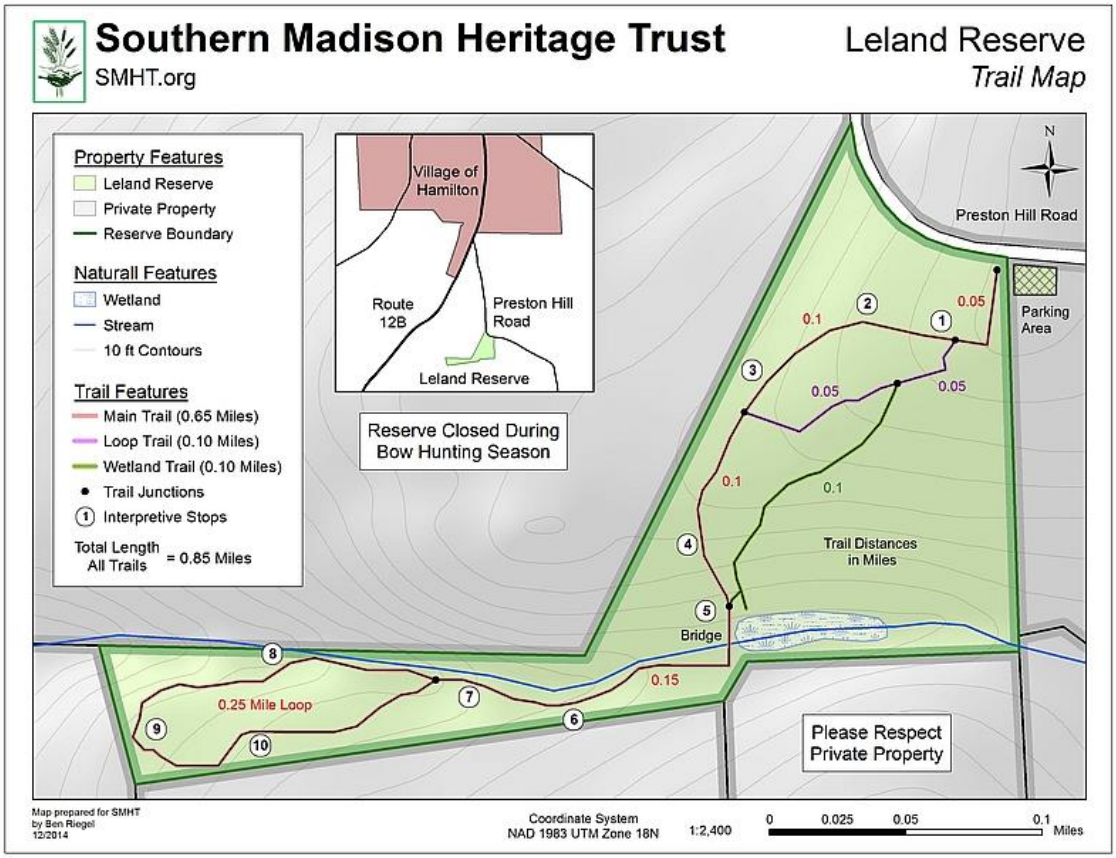
This interpretive trail highlights the key natural resources of the Leland Reserve and the conservation practices used by SMHT to maintain the land as you see it today. Each circle on the map corresponds to a numbered guide post on the trail. The Leland Reserve was donated to SMHT in 2003 by Ann Leland for the purpose of public access and enjoyment of its unique character.

Property Map and Trail

The numbered sections below correspond to the post along the Leland Reserve trail.
Restrictions: No motorized vehicles, no hunting or trapping. Open Sunrise to sunset.

1 — Old fields

The term "old field" is used for recently abandoned agricultural fields that have become meadows dominated by grasses and non-woody plants such as perennial and annual wildflowers. This field was once cleared by farmers as pasture for their livestock. Now, the field provides habitat for birds, small mammals, and insects. Periodic mowing by SMHT will prevent this field from being taken over by woody vegetation and later growing into a forest —an ecological process called "succession."



2 — Viewshed

The Leland Reserve lies within a larger rural landscape dominated by open farmland and native forest. The viewshed before you includes the highest point of Preston Hill—about 1500 feet. Both natural processes and historical land use practices have shaped this view. In colonial times the first white settlers would not have been able to see this view because of the continuous, mature forests. Over time, the view has changed as land was cleared for crops and later abandoned. SMHT's management objective here is to make sure this distant view remains visible.

3 — Shrubland

This area illustrates the next stage of ecological succession. It was once similar to the old field but simply abandoned earlier than other parts of the property. Consequently, woody plants have had more time to become established due to their ability to compete for sunlight. Some of the common shrubs in this area include honeysuckle, viburnum, and hawthorn, all of which can provide shelter and food for birds, mice, deer, rabbits, deer and many types of insects. SMHT will manage this area by selectively removing shrubs to prevent unchecked growth, reduction of plant diversity, and loss of scenic views.

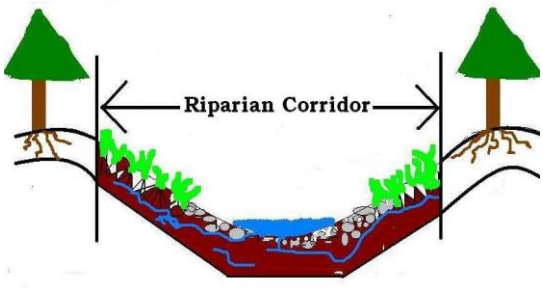
4 — Young Forest

You are standing in a young northern hardwood forest. This is the last or climax stage of ecological succession whereby shade tolerant trees have overtopped shrubs or shade-intolerant trees and developed a canopy that completely shades the forest floor. Common northern hardwood species here include sugar maple, black cherry, and white ash.

5 — Stream and Watershed

This stream lies within the Chenango River drainage basin. As the stream exits the Leland Property to the west, it feeds into the abandoned Chenango canal, beginning a long journey through the Chenango River, connecting with the Susquehanna River, eventually spilling out into Chesapeake Bay. Even though the streambed may dry out occasionally in the summer months, there is always water migrating underneath the streambed.

6 — Riparian Corridor



Riparian corridors are water-saturated areas between stream banks and upland terrestrial ecosystems. Their high water tables support water-needy plants such as the skunk cabbage. The riparian vegetation naturally protects water quality because the dense roots stabilize the stream bank, reduce erosion, trap sediments, and provide a buffer zone to withstand flash

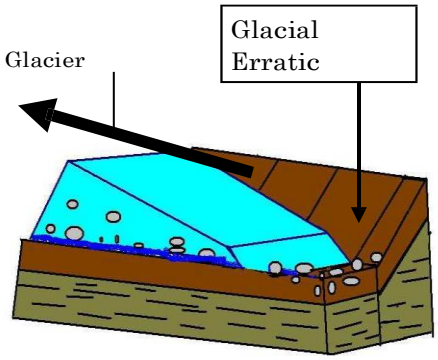
flood disturbances. Birds and mammals depend on this area to obtain food, water, and shelter. For these reasons, the riparian corridor is an ecologically crucial zone.

7 — Bedrock Geology

Here you can see the exposed sedimentary rocks within the stream channel. Slabs of shale, siltstone, and sandstone make up the bedrock beneath the soils. Geologists date these rocks as over 400 million years old, forming in the Devonian age. During this era, Hamilton was beneath a broad inland sea and thick layers of sediments were deposited in this area; over time the layers hardened and flattened due to immense pressure and formed the bedrock that exists today. The many fossils found in these rocks are direct evidence of the ancient sea.

8 — Glacial Erratic

About 15,000 years ago, New York was covered by a thick glacier known as the Wisconsin Glacier. As it slowly melted and retreated, the glacier deposited boulders that had been embedded in the ice after being scoured from their original locations. The boulder you see in front of you, called a glacial erratic, is evidence of this process because it has a different chemical composition than the underlying bedrock.



9 — Decomposition

The sporadic appearance of downed trees showcases the natural lifecycle of forests. Downed trees left to decay in the woods recycle nutrients and create a rich organic layer that becomes a home for microorganisms, invertebrates, and amphibians. Instead of removal, SMHT leaves these trees in place because they provide important habitats for wildlife.

10 — Silviculture

Silviculture is the branch of forestry concerned with the care and development of forests. Sustainable management here will promote growth and regeneration of healthy northern hardwood forests. SMHT balances optimal forest growth with recreational value by monitoring the various tree stands and selectively thinning out undesirable tree species so that the ones remaining have sufficient crown space to grow. SMHT also cuts diseased trees that pose potential problems for the rest of the forest. The forest species and living conditions add to the ecological diversity of the property as compared to those in the old-field grassland and shrubland.

This covers the marked guideposts in the self-guided walking tour of the Leland Reserve. Enjoy your walk back to the starting point. Look around and notice all the different types of habitat present on this small, unique property.